ADAPTIVE COMPRESSION CACHING FOR TAPE RECORDING

Abstract of the Disclosure

A method for selectively compressing data entering a data storage device, such as a digital linear tape drive, comprises the steps of:

receiving a plurality of data records of predetermined size from a host computer connected to the device,

compressing one of the plurality of data records by passing the record through a data compressor and then into a cache buffer,

determining if a data level of the cache buffer following receipt of the one data record is above a predetermined watermark reference, and if so, enabling the bypass path around the data compressor,

transferring an uncompressed second data record around the data compressor and into the cache buffer,

redetermining data level of the cache buffer following transfer of the second data record, and

selectively disabling or continuing the bypass path depending upon redetermined data level of the cache buffer.

FIGURE 1